

I, Bob Hughes, make the following declaration under penalty of perjury, from my observation of the 2022 Maricopa County election. I base my conclusions on my knowledge and understanding of printing and paper. I also observed first-hand the pre-election L&A Certification reports for the secure vote machines used in the election. My conclusions are derived from 50 years of experience in the printing and paper industry, 16 years working with the printing company that printed the Maricopa County ballots, 12 years during which I was a manager when printing the Maricopa County ballots. Additionally, for 12 years I was an associate professor at Arizona State University in the college of Engineering, Department of Technology, where I taught 4 different printing courses. I also served on the Board of Directors and as the President of the Arizona Printing Industries Association for 7 years.

1. The pre-election Logic and Accuracy equipment certification reports that I personally observed, purported to prove all the machines used in the 223 vote centers from the 2022 election, met the legal standards of HAVA and the EPM, allowing them to be legally used for the election. NO errors were reported at any voting center for any piece of equipment.
2. The tabulator results from the 2022 Maricopa County election were provided by MCTEC and presented to the Arizona Senate during an election integrity hearing. These tests showed that on Election Day, NO Vote Center performance matched the L&A tests, nor performed at a level that met the legal requirements set by the Help America Vote Act known as the HAVA, Federal Elections Law, or the Arizona Elections Procedural Manual as required by Arizona State law. These laws are enacted to ensure no voter is disenfranchised by how an election is operated in the State of Arizona and this election violated the standards in several ways including by failing to meet the basic Logic and Accuracy standards required to use electronic voting machines. They also failed to provide an equal experience to every voter as required by law.
3. On April 13, 2023, Maricopa County released an independent investigation that was prompted by the massive failure of the election machines on election day. The purpose of the investigation was to investigate the ballot printing by the onsite Ballot-on-Demand printers and the subsequent ability of the tabulators to read the ballots accurately. The investigation requested by Governor Hobbs and instituted by the Maricopa County Attorney was intended to find out what factors caused the election day problems. Most notably, finding out why the problems were not seen during the primary election run on the same equipment without issue.

I believe an even more important question, is why the printers and tabulators failed to perform as they did during the L&A testing, while using the same paper and the

same image as was used in the election? This testing is the basis upon which all trust is placed in the outcome of the election. Meeting the same standards as the L&A tests is expected by the laws governing the election and ensures voters that the results are fair, equitable, and unbiased.

Though we were assured that the printers were tested and secured before the election, the printers failed to print ballots that met the same standards that the machines were tested to during the pre-election Logic and Accuracy tests. Though Judge McGregor reported that 100-lb paper and a 20-inch ballot image led to many of the printing problems, not even one failure occurred during the Logic and Accuracy test which were allegedly run on the same equipment, using the same 100-lb paper and with the same 20-inch ballot image.

The report concluded the heavier paper and larger 20-inch image led to the failures of the printers. However, this falls far short of explaining the problem when both specifications are within the printers' capabilities and neither caused an issue during the L&A testing. It is even less plausible when considering two different brands of printers were used throughout the 223 vote centers used during the election.

Before the election, all the machines were operating perfectly and then failed miserably on election day, bringing into question how secure were the machines after they were tested? Were they adequately secured before the election started? Or were they somehow tampered with prior to or during the election leading to the failures? It does not appear from the report that election interference was given enough consideration as the root cause of the printer failures.

During the Lake trial there was testimony from each side as to whether a 19" ballot style was substituted in place of a 20" style. When at MCTEC during the review of the L&A tests, I was told that only 20" ballot styles were created for the 2022 election. That statement has proven to be true in that all the corrupted ballots with a 19" image were photographic reductions of the 20" ballot image.

4. Maricopa Counties' investigation proved the election failed to meet the legal standards set law for a certifiable election. In the report it is stated that printer 404 printed 92 ballots that could not be read by the tabulator during testing. Additionally, printer 323 printed 72 ballots that were misread by the tabulator. These results far exceed the legal limits established by law for using electronic equipment for an election. To date no exact cause of the substituted ballot image has been explained. No future election should be run on this equipment until a complete investigation proves exactly what caused the massive failure we witnessed in the 2022 election.



5. The County's report fails to explain the cause of the unreadable ballot image appearing on the ballots in a secure voting system. Paper weight and increased image size do not explain how the machine settings were compromised. The report says, the failure was "not human error but machine error" yet the report fails to identify the cause of the machine error. If a 20" image size and heavier paper explained the problem, then the problem would have occurred during L&A testing. It also would have been duplicated during the investigation. Printers do not change the size of an image without reason and no reason has been reported. Some form of interaction is required to change a printer's specifications. Due to the security standards for the printers, the operating controls of the printers are not available to the election poll workers. This leaves the only way specifications can be changed is through the online e-poll book that is connected to the printer when sending the ballot image file known as a PDF, which is a "locked" file.

Because the real possibility exists that the machines were interfered with through their online network, further investigation to the exact cause of the interference must be proven. Being one of the individuals that audited the 2020 election, I know there were many irregularities and out right illegal activities during the 2020 election that have still not been allowed to be adjudicated in a court of law. My grandmother taught me, get fooled once shame on them, but get fooled twice shame on you. The questions of this election must be resolved. We have a 3-part system of checks and balances in our government. The Judicial system must act to protect the legal rights of the citizens and to allow transparency so that no question remains about the fairness of our democracy. Because the election was overseen by some of the same individuals who were elected in 2020, and who were now overseeing this election, absolute proof of fairness is even more important.

6. The report further states, "nothing we learned in our interviews or document reviews gave any clear indication that the problem should have been anticipated." This statement from the report makes it clear they did not anticipate the problem and the true cause of the problem has yet to be uncovered. This once again leads to the question; how did the printers' specifications get changed on election day? And more importantly, who was responsible for making the changes? Nothing in the report addresses the obvious security issue raised by the reports' findings. How were changes made within a supposedly secure voting system?
7. Because Democratic voters were encouraged to mail in their ballots, they were not as impacted by the printer failures on Election Day. However, since Republican voters were encouraged to vote on election day due to fears of chain of custody issues, the failure of the printers on election day, had a much greater effect on

Republican voters. This single fact shows how the printer failure disenfranchised many more Republican voters than Democratic voters. It also creates substantial doubt as to the security and fairness of this election because different voters were not treated equally as required by law.

8. Both Lexmark and Oki printers printed ballots with an unreadable 19" image. The report gave No clear explanation as to how the ballot image was altered or who was behind the intentional change to the image. However, knowing both brands of printers were affected, means the problem was systemic in nature. We also know the problem occurred in many different voting centers throughout Maricopa County and each of those voting centers were completely isolated from each other except for the common communications network. Because the voting centers are geographically separated, only one thing connects them on election day, they are all online to MCTEC. It is not plausible to believe that the same random failure occurred in 223 separate locations and over 500 printers of two different brands, all with no proven cause. Relying on pre-election testing is paramount to trusting electronic vote systems. Since the printers tested perfectly during the L&A testing it should be expected they "anticipated no problems" because no problems should have occurred in a secure voting system, unless there was intentional interference.
9. The replacement of the ballot image made it a certainty that every ballot printed the wrong size would be rejected by the tabulator. This led to tens of thousands of ballots that could not be counted by the on-site tabulators. As voter after voter watched as their ballot was rejected, confidence in the election system in Maricopa County was lost. Angry, confused, and scared voters witnessed first-hand as they believed the election was stolen right before their eyes. Not receiving the confirming green check mark from a tabulated ballot, voters were left disillusioned. Tens of thousands of voters skeptical of the integrity of this election now had their worst fear confirmed. This cannot be left unresolved or all belief in our system will be lost.
10. Ballots not tabulated onsite were placed into Drawer 3. Tens of thousands of ballots were now in limbo. As the report states, because they did not anticipate such a problem, no training was provided poll workers on how to deal with such a fiasco. Onsite poll workers with limited training were left to fend for themselves with very little support. Voters were told the "techs" would not be available for hours to repair the problem. Already skeptical voters were told they could "spoil" their ballot and try again. Or they could leave their uncounted ballot in the hands of total strangers with no chain-of-custody.

Concerns over chain-of-custody of mail-in ballots is exactly the reason Republicans were told to vote in person on the day of the election. They were instructed to be sure you receive a green check mark confirming your ballot was counted at the vote center. Now tens of thousands of ballots were uncounted, poorly documented, insecure, and vulnerable to potential problems in not being counted fairly.

11. If there was a plan to disrupt the election and corrupt the outcome, the ballot size alteration was the perfect method. Because the tabulator is designed to find voting ovals based on their relative position on the paper, changing the size of the image is absolute in making the ballot unreadable by the onsite tabulator. Knowing that the exact worst-case scenario came true, makes both the fear and possibility that hacking into the secure vote system occurred. Until the exact cause of the image change is uncovered and revealed to the public, as an observer of the election, neither I, nor any other person can rule out intentional election interference.
12. It has been reported that 263,379 dropped-off ballot envelopes were documented inbound to Runbeck (a third-party processor) and then after spending a weekend at Runbeck, 298,942 ballot packets were documented returned to MCTEC for tabulation. No plausible explanation has been given for the origin of the additional 35,563 ballots that were injected into the uncounted ballots.

A loss of chain-of-custody of this proportion violates every standard of a secure election. The excuse that the ballot packets were not counted but only weighed, only increases the argument that the chain-of-custody was violated. Leaving uncounted, unverified, and insecure ballots in the hands of a third party for several days is the definition of loss of chain-of-custody.

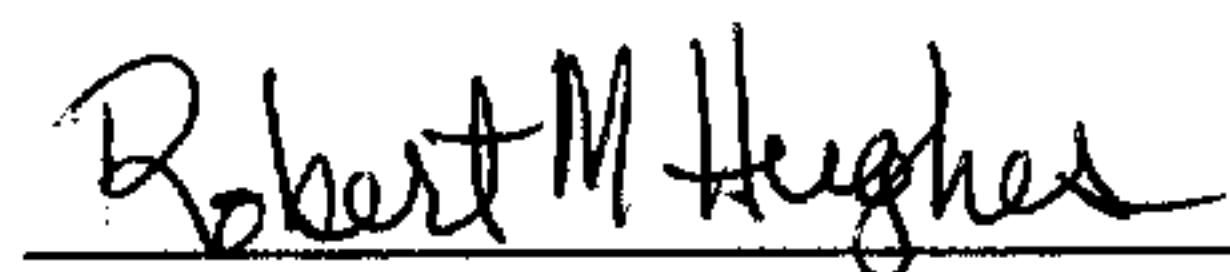
13. It is still unclear how drawer 3 ballots were accounted for and ultimately counted? Who counted them? And were the Ballots adjudicated and were observers present as is required by law? Unreadable ballots adjudication requires that a person from each party be present to view the ballot and determine voter intent when marking a new replacement ballot. This is a manual process on an unreadable ballot.

To be electronically adjudicated, the ballots must be read by a tabulator to create a photographic image of the ballot. Unreadable ballots are adjudicated in a completely different method. Drawer 3 ballots were not read by the tabulators and therefore, they need to be adjudicated through a much more time-consuming manual process.




On the MCTEC web site, it was reported that the new electronic system for adjudication reduced the time from 12 minutes per ballot to about 1 minute. However, the use of that system is only for ballots read by tabulators and not for duplicating an unreadable ballot. And because the bulk of unreadable ballots were due to a size issue, they could not be read by any tabulator. Though it was said in the news that MCTEC said they had more sensitive tabulators, that would not make a wrong sized ballot readable.

Only approved, tested systems can be used without violating HAVA and the EPM for Maricopa County. Because these ballots represent many voters who voted in-person, it is crucial that the ballots are transferred from their original ballot to a new ballot under the secure observation of both parties to provide complete transparency and equity for every voter. This issue still needs to be resolved in court.



Robert M. Hughes



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